

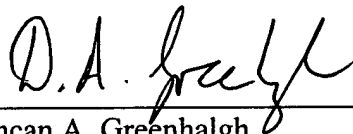
STATEMENT

3. I hereby state that:

(complete applicable items A, B and/or C)

- A. ☒ the content of the paper and computer readable copies submitted herewith are the same.
- B. ☐ the content of the computer readable copy submitted herewith is the same as the Sequence Listing appearing on pages __ to __ of the original specification as filed.
- C. ☐ this submission includes no new matter.

Respectfully submitted,



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SEQUENCE LISTING

<110> Watkins, Brynmor

<120> Materials and Methods for Detection and Treatment of
Breast Cancer

<130> MTP-024

<140>

<141>

<150> US 60/165,173

<151> 1999-11-16

<150> US 60/172,170

<151> 1999-12-17

<150> US 60/178,860

<151> 2000-01-27

<150> US 60/201,721

<151> 2000-05-03

<160> 23

<170> PatentIn Ver. 2.0

<210> 1

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Tryptic peptide

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Gln Leu Gln Gly Phe Pro Phe Tyr Gly Lys Pro Met Arg
1 5 10

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<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Tryptic peptide

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His Asp Ile Ala Phe Val Glu Phe Glu Asn Asp Gly Gln Ala Gly Ala
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Ala Arg

<210> 3
<211> 23
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Tryptic peptide

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Leu Val Pro Gly Arg His Asp Ile Ala Phe Val Glu Phe Glu Asn Asp
1 5 10 15
Gly Gln Ala Gly Ala Ala Arg
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<212> PRT
<213> Artificial Sequence

<220>
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<400> 4
Thr Val Glu Gln Thr Ala Thr Thr Thr Asn Lys
1 5 10

<210> 5
<211> 225
<212> PRT
<213> Homo sapiens

<400> 5
Met Asp Ile Arg Pro Asn His Thr Ile Tyr Ile Asn Asn Met Asn Asp
1 5 10 15

Lys Ile Lys Lys Glu Glu Leu Lys Arg Ser Leu Tyr Ala Leu Phe Ser
20 25 30

Gln Phe Gly His Val Val Asp Ile Val Ala Leu Lys Thr Met Lys Met
35 40 45

Arg Gly Gln Ala Phe Val Ile Phe Lys Glu Leu Gly Ser Ser Thr Asn
50 55 60

Ala Leu Arg Gln Leu Gln Gly Phe Pro Phe Tyr Gly Lys Pro Met Arg
65 70 75 80

Ile Gln Tyr Ala Lys Thr Asp Ser Asp Ile Ile Ser Lys Met Arg Gly
85 90 95

Thr Phe Ala Asp Lys Glu Lys Lys Lys Glu Lys Lys Lys Ala Lys Thr
100 105 110

Val Glu Gln Thr Ala Thr Thr Thr Asn Lys Lys Pro Gly Gln Gly Thr

115	120	125
Pro Asn Ser Ala Asn Thr Gln Gly Asn Ser Thr Pro Asn Pro Gln Val		
130	135	140
Pro Asp Tyr Pro Pro Asn Tyr Ile Leu Phe Leu Asn Asn Leu Pro Glu		
145	150	155 160
Glu Thr Asn Glu Met Met Leu Ser Met Leu Phe Asn Gln Phe Pro Gly		
	165	170 175
Phe Lys Glu Val Arg Leu Val Pro Gly Arg His Asp Ile Ala Phe Val		
	180	185 190
Glu Phe Glu Asn Asp Gly Gln Ala Gly Ala Ala Arg Asp Ala Leu Gln		
	195	200 205
Gly Phe Lys Ile Thr Pro Ser His Ala Met Lys Ile Thr Tyr Ala Lys		
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Lys
225

<210> 6
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

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Gly Gln Val Pro Met Gln Asp Pro Arg
1 5

<210> 7
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

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Gly Ser Leu Pro Ala Asn Val Pro Thr Pro Arg
1 5 10

<210> 8
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

<400> 8
Gly Leu Leu Gly Asp Ala Pro Asn Asp Pro Arg
1 5 10

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

<400> 9
Ala Gly Leu Thr Val Arg Asp Pro Ala Val Asp Arg
1 5 10

<210> 10
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<212> PRT
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<400> 10
Ala Leu Arg Val Asp Asn Ala Ala Ser Glu Lys Asn Lys
1 5 10

<210> 11
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1 5 10

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<213> Artificial Sequence

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Asp Ile Phe Ser Glu Val Gly Pro Val Val Ser Phe Arg
1 5 10

<210> 13
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

<400> 13
Gly Ile Asp Ala Arg Gly Met Glu Ala Arg Ala Met Glu Ala Arg
1 5 10 15

<210> 14
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:tryptic peptide

<400> 14
Gly Met Glu Ala Arg Ala Met Glu Ala Arg Gly Leu Asp Ala Arg
1 5 10 15

<210> 15
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<212> PRT
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<223> Description of Artificial Sequence:tryptic peptide

<400> 15
Ala Val Ala Ser Leu Pro Pro Glu Gln Met Phe Glu Leu Met Lys
1 5 10 15

<210> 16
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence:tryptic peptide

<400> 16
Ala Met Glu Ala Arg Ala Met Glu Val Arg Gly Met Glu Ala Arg
1 5 10 15

<210> 17
<211> 21
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:tryptic peptide

<400> 17

Gly Tyr Leu Gly Pro Pro His Gln Gly Pro Pro Met His His Val Pro
1 5 10 15

Gly His Glu Ser Arg
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<210> 18

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:tryptic peptide

<400> 18

Gly Pro Ile Pro Ser Gly Met Gln Gly Pro Ser Pro Ile Asn Met Gly
1 5 10 15

Ala Val Val Pro Gln Gly Ser Arg
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<210> 19

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:tryptic peptide

<400> 19

Asn Met Leu Leu Gln Asn Pro Gln Leu Ala Tyr Ala Leu Leu Gln Ala
1 5 10 15

Gln Val Val Met Arg
20

<210> 20

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:tryptic peptide

<400> 20

Gly Gly Pro Leu Pro Glu Pro Arg Pro Leu Met Ala Glu Pro Arg Gly
1 5 10 15

Pro Met Leu Asp Gln Arg

<210> 21
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:tryptic peptide

<400> 21

Ser Leu Gly Thr Gly Ala Pro Val Ile Glu Ser Pro Tyr Gly Glu Thr
 1 5 10 15

Ile Ser Pro Glu Asp Ala Pro Glu Ser Ile Ser Lys
 20 25

<210> 22

<211> 500

<212> PRT

<213> Homo sapiens

<400> 22

Met Ala Gly Leu Thr Val Arg Asp Pro Ala Val Asp Arg Ser Leu Arg
 1 5 10 15

Ser Val Phe Val Gly Asn Ile Pro Tyr Glu Ala Thr Glu Glu Gln Leu
 20 25 30

Lys Asp Ile Phe Ser Glu Val Gly Pro Val Val Ser Phe Arg Leu Val
 35 40 45

Tyr Asp Arg Glu Thr Gly Lys Pro Lys Gly Tyr Gly Phe Cys Glu Tyr
 50 55 60

Gln Asp Gln Glu Thr Ala Leu Ser Ala Met Arg Asn Leu Asn Gly Arg
 65 70 75 80

Glu Phe Ser Gly Arg Ala Leu Arg Val Asp Asn Ala Ala Ser Glu Lys
 85 90 95

Asn Lys Glu Glu Leu Lys Ser Leu Gly Thr Gly Ala Pro Val Ile Glu
 100 105 110

Ser Pro Tyr Gly Glu Thr Ile Ser Pro Glu Asp Ala Pro Glu Ser Ile
 115 120 125

Ser Lys Ala Val Ala Ser Leu Pro Pro Glu Gln Met Phe Glu Leu Met
 130 135 140

Lys Gln Met Lys Leu Cys Val Gln Asn Ser Pro Gln Glu Ala Arg Asn
 145 150 155 160

Met Leu Leu Gln Asn Pro Gln Leu Ala Tyr Ala Leu Leu Gln Ala Gln
 165 170 175

Val Val Met Arg Ile Val Asp Pro Glu Ile Ala Leu Lys Ile Leu His
180 185 190

Arg Gln Thr Asn Ile Pro Thr Leu Ile Ala Gly Asn Pro Gln Pro Val
195 200 205

His Gly Ala Gly Pro Gly Ser Gly Ser Asn Val Ser Met Asn Gln Gln
210 215 220

Asn Pro Gln Ala Pro Gln Ala Gln Ser Leu Gly Gly Met His Val Asn
225 230 235 240

Gly Ala Pro Pro Leu Met Gln Ala Ser Met Gln Gly Gly Val Pro Ala
245 250 255

Pro Gly Gln Met Pro Ala Ala Val Thr Gly Pro Gly Pro Gly Ser Leu
260 265 270

Ala Pro Gly Gly Gly Met Gln Ala Gln Val Gly Met Pro Gly Ser Gly
275 280 285

Pro Val Ser Met Glu Arg Gly Gln Val Pro Met Gln Asp Pro Arg Ala
290 295 300

Ala Met Gln Arg Gly Ser Leu Pro Ala Asn Val Pro Thr Pro Arg Gly
305 310 315 320

Leu Leu Gly Asp Ala Pro Asn Asp Pro Arg Gly Gly Thr Leu Leu Ser
325 330 335

Val Thr Gly Glu Val Glu Pro Arg Gly Tyr Leu Gly Pro Pro His Gln
340 345 350

Gly Pro Pro Met His His Val Pro Gly His Glu Ser Arg Gly Pro Pro
355 360 365

Pro His Glu Leu Arg Gly Gly Pro Leu Pro Glu Pro Arg Pro Leu Met
370 375 380

Ala Glu Pro Arg Gly Pro Met Leu Asp Gln Arg Gly Pro Pro Leu Asp
385 390 395 400

Gly Arg Gly Gly Arg Asp Pro Arg Gly Ile Asp Ala Arg Gly Met Glu
405 410 415

Ala Arg Ala Met Glu Ala Arg Gly Leu Asp Ala Arg Gly Leu Glu Ala
420 425 430

Arg Ala Met Glu Ala Arg Ala Met Glu Ala Arg Ala Met Glu Ala Arg
435 440 445

Ala Met Glu Ala Arg Ala Met Glu Val Arg Gly Met Glu Ala Arg Gly
450 455 460

Met Asp Thr Arg Gly Pro Val Pro Gly Pro Arg Gly Pro Ile Pro Ser
465 470 475 480

Gly Met Gln Gly Pro Ser Pro Ile Asn Met Gly Ala Val Val Pro Gln
485 490 495

Gly Ser Arg Gln
500

<210> 23
<211> 577
<212> PRT
<213> Homo sapiens

<400> 23
Met Ala Gly Leu Thr Val Arg Asp Pro Ala Val Asp Arg Ser Leu Arg
1 5 10 15

Ser Val Phe Val Gly Asn Ile Pro Tyr Glu Ala Thr Glu Glu Gln Leu
20 25 30

Lys Asp Ile Phe Ser Glu Val Gly Pro Val Val Ser Phe Arg Leu Val
35 40 45

Tyr Asp Arg Glu Thr Gly Lys Pro Lys Gly Tyr Gly Phe Cys Glu Tyr
50 55 60

Gln Asp Gln Glu Thr Ala Leu Ser Ala Met Arg Asn Leu Asn Gly Arg
65 70 75 80

Glu Phe Ser Gly Arg Ala Leu Arg Val Asp Asn Ala Ala Ser Glu Lys
85 90 95

Asn Lys Glu Glu Leu Lys Ser Leu Gly Thr Gly Ala Pro Val Ile Glu
100 105 110

Ser Pro Tyr Gly Glu Thr Ile Ser Pro Glu Asp Ala Pro Glu Ser Ile
115 120 125

Ser Lys Ala Val Ala Ser Leu Pro Pro Glu Gln Met Phe Glu Leu Met
130 135 140

Lys Gln Met Lys Leu Cys Val Gln Asn Ser Pro Gln Glu Ala Arg Asn
145 150 155 160

Met Leu Leu Gln Asn Pro Gln Leu Ala Tyr Ala Leu Leu Gln Ala Gln
165 170 175

Val Val Met Arg Ile Val Asp Pro Glu Ile Ala Leu Lys Ile Leu His
180 185 190

Arg Gln Thr Asn Ile Pro Thr Leu Ile Ala Gly Asn Pro Gln Pro Val
195 200 205

His Gly Ala Gly Pro Gly Ser Gly Ser Asn Val Ser Met Asn Gln Gln
210 215 220

Asn Pro Gln Ala Pro Gln Ala Gln Ser Leu Gly Gly Met His Val Asn

225		230		235		240
Gly Ala Pro Pro Leu Met Gln Ala Ser Met Gln Gly Gly Val Pro Ala						
	245			250		255
Pro Gly Gln Met Pro Ala Ala Val Thr Gly Pro Gly Pro Gly Ser Leu						
	260			265		270
Ala Pro Gly Gly Gly Met Gln Ala Gln Val Gly Met Pro Gly Ser Gly						
	275			280		285
Pro Val Ser Met Glu Arg Gly Gln Val Pro Met Gln Asp Pro Arg Ala						
	290			295		300
Ala Met Gln Arg Gly Ser Leu Pro Ala Asn Val Pro Thr Pro Arg Gly						
	305			310		315
Leu Leu Gly Asp Ala Pro Asn Asp Pro Arg Gly Gly Thr Leu Leu Ser						
	325			330		335
Val Thr Gly Glu Val Glu Pro Arg Gly Tyr Leu Gly Pro Pro His Gln						
	340			345		350
Gly Pro Pro Met His His Val Pro Gly His Glu Ser Arg Gly Pro Pro						
	355			360		365
Pro His Glu Leu Arg Gly Gly Pro Leu Pro Glu Pro Arg Pro Leu Met						
	370			375		380
Ala Glu Pro Arg Gly Pro Met Leu Asp Gln Arg Gly Pro Pro Leu Asp						
	385			390		395
Gly Arg Gly Gly Arg Asp Pro Arg Gly Ile Asp Ala Arg Gly Met Glu						
	405			410		415
Ala Arg Ala Met Glu Ala Arg Gly Leu Asp Ala Arg Gly Leu Glu Ala						
	420			425		430
Arg Ala Met Glu Ala Arg Ala Met Glu Ala Arg Ala Met Glu Ala Arg						
	435			440		445
Ala Met Glu Ala Arg Ala Met Glu Val Arg Gly Met Glu Ala Arg Gly						
	450			455		460
Met Asp Thr Arg Gly Pro Val Pro Gly Pro Arg Gly Pro Ile Pro Ser						
	465			470		475
Gly Met Gln Gly Pro Ser Pro Ile Asn Met Gly Ala Val Val Pro Gln						
	485			490		495
Gly Ser Arg Gln Val Pro Val Met Gln Gly Thr Gly Met Gln Gly Ala						
	500			505		510
Ser Ile Gln Gly Gly Ser Gln Pro Gly Gly Phe Ser Pro Gly Gln Asn						
	515			520		525
Gln Val Thr Pro Gln Asp His Glu Lys Ala Ala Leu Ile Met Gln Val						



540

Gln Ser Ile Leu Ile Leu Lys Glu Gln Ile Gln Lys Ser Thr Gly Ala
565 570 575

Pro

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